EFFECT OF FEEDING SOME MEDICINAL PLANTS BY-PRODUCTS ON THE PERFORMANCE OF LACTATING BUFFALOES

By

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ABSTRACT

The present study was carried out at the Experimental Station and Laboratories of Animal Production Department, Faculty of Agriculture, Fayoum University, Egypt.

Four medicinal plants by-products in diets were nutritionally evaluated through digestibility trials and productive performance of lactating buffaloes. Seven Lactating buffaloes weighed 530±10 kg in average at the 3rd to 5th parity of lactation were used. Feeding trials were initiated at 45±3 days post partum, where each buffalo was served as it's own control and the experimental diets were fed in successive durations. The treatments were D_1, (control) composed of 50% concentrate mixture (CM)+25% clover hay (CH)+25% wheat straw (WS); D_2, 50% CM+18.75% CH+18.75% WS+ 12.5% medicinal plants by-products; D_3, 50% CM+12.5% CH+12.5% WS+25% medicinal plants by-products and D_4, 50% CM+ 50% medicinal plants by-products. Such medicinal plants by-products tested were (*Foeniculum vulgre*, *Cymbopogon Citratus*, *Carum carvi*, *Mentha piperita),* respectively when they were evaluated individually.

The results revealed that buffaloes fed diets containing medicinal plants by-products showed better ($P \leq 0.05$) digestibility coefficients and feeding values compared with control diet. Also, buffaloes when fed D_2, D_3 and D_4 showed the highest milk yield and its components followed by the control one. From economical point of view, the medicinal plants by-products containing diets reduced feeding costs needed to produce 1 kg milk (4% FCM) especially that contained 50% medicinal plants by-products (D_4) and 25% medicinal plants by-products (D_3).

It could be concluded that medicinal plants by-products tested can safely and economically replace up to 100% of both clover hay and wheat straw in diets of lactating buffaloes.

Keywords: Medicinal plants by-products, Buffaloes, Digestibility, Feeding values, Feed intake, Milk yield and its components.